NON-TECHNICAL ABSTRACT

Patients with the blood disease X-linked chronic granulomatous disease (CGD) have a defective gene ($gp91^{phox}$) that results in the absence of a protein that is important for the killing of bacteria and fungus. The type of blood cells affected by this disease are called phagocytes. This study will ascertain the toxicities associated with placing a normal $gp91^{phox}$ gene into the blood forming cells that produce phagocytic cells. It will also examine whether these manipulated blood cells contain the normal gene, how long the gene is present and whether the gene is producing the protein that will make these phagocytic cells function normally.